Dated: November 27, 1992.

Bruce Blanchard,

Acting Director, Fish and Wildlife Service.

[FR Doc. 92-30175 Filed 12-10-92; 8:45 am]

BILLING CODE 4310-55-M

50 CFR Part 17

RIN 1018-AB83

Endangered and Threatened Wildlife and Plants; Proposal To List the Relict Darter and Bluemask (=Jewel) Darters as Endangered Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: The U.S. Fish and Wildlife Service (Service) proposes to list the relict darter (*Etheostoma chienense* and bluemask (=jewel) darter (*Etheostoma (Doration)* sp.) as endangered under the Endangered Species Act of 1973, as amended (Act). The relict darter, which is endemic to the Bayou du Chien drainage in western Kentucky, has been collected from only five sites within this drainage and is known to spawn in only one Bayou du Chien tributary. The relict darter has been and continues to be impacted by poor water quality and habitat deterioration resulting from stream channelization, siltation caused by poor land use practices, and by other water pollutants. The bluemask darter is endemic to the Caney Fork River system (above Great Falls), Cumberland River

basin, in central Tennessee. Based on historic records, the species was known from five rivers in the Caney Fork River system. The bluemask darter is now known from four stream reaches. Its distribution has been reduced by such factors as impoundments, water withdrawal, and the general deterioration of water quality resulting from siltation and other pollutants contributed by coal mining, gravel mining, poor land use practices, and waste discharges. These factors continue to impact the species and its habitat. Comments and information are sought from the public on this proposal.

DATES: Comments from all interested parties must be received by February 9, 1993. Public hearing requests must be received by January 25, 1993.

ADDRESSES: Comments and materials concerning this proposal should be sent to the Field Supervisor, U.S. Fish and Wildlife Service, Asheville Field Office, 330 Ridgefield Court, Asheville, North Carolina 28806 (704/665–1195). Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: For further information on this proposed rule, please contact Mr. Richard G. Biggins at the above address.

SUPPLEMENTARY INFORMATION:

Background

Relict Darter

The relict darter is endemic to the Bayou du Chien watershed in extreme western Kentucky. Recently this darter, which is one of 10 recognized species in the *Etheostoma squamiceps* complex of the subgenus *Catonotus*, was formally described by Page *et al.* (1992). It is a small (2½-inch) fish. Females and nonbreeding males have light tan colored backs and sides, with brown mottling and six to eight dark brown saddles. They have white unmarked undersides. Breeding males have gray to dark brown sides and backs and light tan undersides.

Warren and Burr (1991) reviewed all known recent and historical literature regarding the relict darter and surveyed known collection sites and potential habitat within the Bayou du Chien watershed. They reviewed fish collection records from adjacent watersheds and also surveyed these areas for the relict darter. They speculated that the fish was once more widespread in the Bayou du Chien system. However, based on historic and current records, they reported that the fish has only been documented from nine sites in Graves and Hickman Counties, Kentucky; only one spawning site is known.

The relict darter's distribution has apparently been reduced by such factors as channelization and the general deterioration of water and habitat quality resulting from siltation and other pollutants contributed by poor land use practices and by waste discharges. These factors continue to impact the species and its habitat. Because the species presently inhabits only limited areas and is known to spawn in only one small tributary, it is very vulnerable to extirpation from toxic chemical spills. Additionally, because of its small population size, the species' long-term genetic viability is questionable.

On October 29, 1991, the Service notified by mail (22 letters) potentially affected Federal and State agencies, and local governments, as well as interested individuals, that a status review of the relict darter was being conducted. Three comments were received as a result of this notification. The Tennessee Valley Authority and the Kentucky State Nature Preserves Commission supported the species' potential Federal protection and the Kentucky Department of Fish and Wildlife Resources provided information on fish collections in the watershed. No objections to the potential listing of the relict darter were received.

The relict darter does not appear in the Service's notice of review for animal candidates published in the **Federal Register** of November 21, 1991 (56 FR 58804–58836). However, a status survey completed in late 1991 indicated the species is facing significant threats and is in need of protection under the Act. Based on this information, the Service's Acting Assistant Director on April 29, 1992, approved elevating the relict darter to a category 1, priority 2 (based on a priority scale of 1 to 12) candidate. A category 1 species is a species for which the Service has sufficient information to propose for protection under the Act. The listing priority scale is fully explained in a notice covering the Service's listing and recovery priority guidelines that was published in the **Federal Register** of September 21, 1983 (48 FR 43098).

Bluemask Darter

Although formal description of the bluemask darter (*Etheostoma* (*Doration*) sp.) is not expected before early 1993, species distinctiveness is affirmed by the morphological and allozymic comparison of the characteristics of this species with those of other darters of the same subgenus (Steven Layman, University of Alabama, personal communication, 1992). The bluemask darter is a small (1¾-inch) fish, closely related to *E. stigmaeum*. Breeding males are nearly covered by a bright blue color. Females and nonbreeding males are not as brightly colored. They have six dark saddle-like markings across the back and seven to eight lateral blotches. The species inhabits areas of slow to moderate current over sand and fine gravel, a habitat type that is very limited in some of the occupied streams.

The bluemask darter is endemic to the Caney Fork River system (above Great Falls), Cumberland River basin, in central Tennessee. Based on current and historic records reviewed by Layman (1991), the species has been collected from five rivers in the Caney Fork River system—Upper Caney Fork River, Collins River, Rocky River, Calfkiller River, and Cane Creek in Grundy, Warren, Van Buren, and White Counties.

A 1991 fish survey (Layman 1991) of the Caney Fork River system above and below Great Falls revealed that the species is now restricted to isolated populations in reaches of four rivers in the Caney Fork River system—Cane Creek, Van Buren County: Collins River, Warren and Grundy Counties; Rocky River, Van Buren County; and Upper Caney Fork River, White County.

The bluemask darter has been impacted by such factors as impoundments, water withdrawals, and the general deterioration of water and substrate quality resulting from siltation and other pollutants contributed by coal mining, gravel mining, poor land use practices, water withdrawal, and waste discharges. These factors continue to impact the species and its habitat.

In the **Federal Register** (56 FR 58804–58836) of November 21, 1991, the Service listed the bluemask darter as a category 2 species. A category 2 species is one that is being considered for possible addition to the Federal List of Endangered and Threatened Wildlife and Plants, but for which there is insufficient information to proceed with a listing proposal. Based on more recent status information, this species was approved by the Service's Acting Assistant Director on April 29, 1992, as a category 1, priority 2 candidate.

On February 28, 1992, the Service notified by mail (40 letters) potentially affected Federal and State agencies and local governments, as well as interested individuals, that a status review of the bluemask darter was being conducted. Three agencies responded. The Tennessee Wildlife Resources Agency said it would help protect the darter during the status review period and

would continue this protection if it were listed. The U.S. Soil Conservation Service and the Department of the Air Force responded to the bluemask darter notification letter but did not take a position on the potential listing. No objections to the potential listing of the bluemask darter were received.

Summary of Factors Affecting the Species

Section 4(a)(1) of the Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal lists. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to the relict darter and the bluemask darter are as follows:

A. The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range

The relict darter is endemic to the Bayou du Chien system in extreme western Kentucky (Warren and Burr 1991). Webb and Sisk (1975) indicated that this darter was "fairly common" in the high gradient reaches of Bayou du Chien in the early 1970s. Warren and Burr (1991) speculated that in presettlement times the species was likely more widespread within the Bayou du Chien watershed in areas upstream of the Mississippi floodplain (upstream of Moscow, Kentucky).

Warren and Burr (1991) surveyed the system in 1991 and collected the species of five sites but found it abundant at only two sites (18 were collected at one site and 46 at another). The other three sites yielded a total of only eight relict darters. They and other researchers have only been able to locate one spawning area in a small tributary stream located in Graves County.

Adult relict darters are concentrated in headwater areas in slow-flowing pools, usually associated with gravel, sand, and leaf litter substrates near fallen tree branches, undercut banks, or overhanging streambank vegetation (Warren and Burr 1991). Warren and Burr (1991) noted that the Bayou du Chien system has been extensively channelized. Much of the streams' sinuosity was eliminated, undercut banks were lost, streambank vegetation and instream cover were removed, and some smaller streams now flow only intermittently. This massive alteration of the relict darter's habitat reduced both relict darter numbers and the amount of suitable habitat. Aside from past channelization impacts, the area is extensively farmed, and much of the watershed has been deforested. These alterations result in a fairly high silt load within the Bayou du Chien system that continues to degrade the habitat and further impacts the species.

The bluemask darter has only been collected from the Caney Fork River system (above Great Falls), Cumberland River basin, in central Tennessee. Layman (1991) reviewed historic collection records and reported that the species has been collected from five rivers in the Caney Fork River system—Upper Caney Fork River, Collins River, Rocky River, Calfkiller River, and Cane Creek in Grundy, Warren, Van Buren, and White Counties. Historic fish collection records are sparse for this area. However, considering the extent of the fish's preferred habitat (slow to moderate current areas with sand and fine gravel substrates (Layman 1991)), which was inundated by Great Falls Reservoir in the 1910s, the species was once likely more widely distributed within this portion of the Caney Fork system than available records indicate. The belief that the species has undergone a range reduction is also supported by Starnes and Etnier (1980).

In 1991 Layman (1991) surveyed the Caney Fork River system above and below Great Falls. He found the fish restricted to isolated populations in short reaches of four rivers in the Caney Fork River system—Cane Creek, Van Buren County; Collins River, Warren and Grundy Counties; Rocky River, Van Buren County; and upper Caney Fork River, White County. Layman (1991) estimated that the bluemask darter currently inhabits about 500 feet of Cane Creek, 25 miles of the Collins River, 2 miles of the Rocky River, and 2.5 miles of the upper Caney Fork River.

The species was historically taken from two sites in the Calfkiller River, White County. However, Layman (1991) made collections at both of these historic collection sites and four other Calfkiller River sites, but no specimens were taken. It is believed that the species has now been extirpated from this river. The fish was also not taken (Layman 1991) in collections made in other Caney Fork tributaries—Barrens Fork River, Falling Water River, Charles Creek, Laurel Creek, Hickory Creek, Town Creek, and Mountain Creek.

The bluemask darter's distribution has been reduced by such factors as impoundments, water withdrawal, and the general deterioration of water quality resulting from siltation and other pollutants contributed by coal mining, gravel mining, poor land use practices, water withdrawal, and waste discharges. These factors continue to impact the species and its habitat.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

The specific areas inhabited by both fish are presently unknown to the general public, and until this proposal is published the public will be unaware of the presence of these rare fish in the Bayou du Chien and the Caney Fork River watersheds. As a result, take of these fish by the general public has not been a problem. However, both fish exist in very small, restricted areas; and the relict darter is known to spawn in only one short stream reach. If the specific inhabited stream reaches become public knowledge through critical habitat designation during the sometimes controversial listing process, it would be extremely easy for vandals to seriously impact the species. Although scientific collecting is not presently identified as a threat, take by private and institutional collectors could pose a threat if specific inhabited locations are revealed. Federal protection could help to minimize the negative impact of illegal or inappropriate take.

C. Disease or Predation

Although the relict and bluemask darters are undoubtedly consumed by predators, there is no evidence that predation is a threat to the species.

D. The Inadequacy of Existing Regulatory Mechanisms

The States of Kentucky and Tennessee prohibit taking fish and wildlife for scientific purposes without a State collecting permit. These permits provide some protection for these fish. However, the species are generally not protected from other threats. Federal listing will provide additional protection for the species under the Act by requiring Federal permits to take the species and by requiring Federal agencies to consult with the Service when projects they fund, authorize, or carry out may adversely affect them.

E. Other Natural or Manmade Factors Affecting its Continued Existence

Because the existing relict and bluemask darter populations inhabit only short stream reaches, they are vulnerable to extirpation from accidental toxic chemical spills. This is especially true of the only known relict darter spawning site, which is close to a railroad line. Additionally, because the relict darter population has been drastically reduced in size, the species'

long-term genetic viability is questionable.

All bluemask darter populations are now isolated by the Great Falls Reservoir. As the populations in Cane Creek and the Upper Caney Fork are extremely small, and as the reservoir restricts gene flow among populations, the long-term genetic viability of these populations is questionable.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by both fish in determining to propose these rules. Based on these evaluations, the preferred action is to propose the relict darter and bluemask darter for Federal protection. The relict darter is now known from only five sites in the Bayou du Chien system in western Kentucky. The bluemask darter is currently known from only four streams in the Caney Fork River system in central Tennessee. These fish and their habitat have been and continue to be impacted by habitat destruction and range reduction. Their limited distribution also makes them very vulnerable to toxic chemical spills. Because of their restricted distributions and their vulnerability to extinction, endangered status appears to be the most appropriate classification for these species. (See "Critical Habitat" section for a discussion of why critical habitat is not being proposed for these fish.)

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that, to the maximum extent prudent and determinable, the Secretary propose critical habitat at the time the species is proposed to be endangered or threatened. The Service's regulations (50 CFR 424.12(a)(1)) state that designation of critical habitat is not prudent when one or both of the following situations exist: (1) The species is threatened by taking or other activity and the identification of critical habitat can be expected to increase the degree of threat to the species or (2) such designation of critical habitat would not be beneficial to the species. The Service finds that designation of critical habitat is not presently prudent for these species. Such a determination would result in no known benefit to these species, and designation of critical habitat could further threaten these two species.

Section 7(a)(2) and regulations codified at 50 CFR part 402 require Federal agencies to ensure, in consultation with and with the assistance of the Service, that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species or destroy or adversely modify their critical habitat, if designated. Section 7(a)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in the destruction or adverse modification of proposed critical habitat. (See "Available Conservation Measures" section for a further discussion of section 7.) As part of the development of this proposed rule, Federal and State agencies were notified of the fishes' general distribution, and they were requested to provide data on proposed Federal actions that might adversely affect the two species. No specific projects were identified. Should any future projects be proposed in areas inhabited by these fish, the involved Federal agency will already have the general distributional data needed to determine if the species may be impacted by their action; and if needed, more specific distributional information would be provided.

Each of these fish occupies very restricted stream reaches. Thus, as any significant adverse modification or destruction of these species' habitat would likely jeopardize their continued existence, no additional protection for the species would accrue from critical habitat designation that would not also accrue form listing these species. Therefore, when listed, habitat protection for these species will be accomplished through the section 7 jeopardy standard and section 9 prohibitions against take.

In addition, both fish are very rare, and taking for scientific purposes and private collection could pose a threat if specific site information were released. The publication of critical habitat maps in the **Federal Register** and local newspapers and other publicity accompanying critical habitat designation could increase the collection threat and increase the potential for vandalism during the often controversial critical habitat designation process. The locations of populations of these species have consequently been described only in general terms in these proposed rules. Any existing precise locality data would be available to appropriate Federal, State, and local governmental agencies from the Service office described in the "ADDRESSES" section; from the Service's Cookeville Field Office, 446 Neal Street, Cookeville, Tennessee 38501; and from the Kentucky Department of Fish and Wildlife Resources, Kentucky State Nature Preserves Commission, Tennessee Wildlife Resources Agency, and Tennessee Department of Conservation.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State, and private agencies, groups, and individuals. The Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) requires Federal agencies to confer informally with the Service on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

The Service notified Federal agencies that may have programs affecting these species. No specific proposed Federal actions were identified that would likely affect the species. Federal activities that could occur and impact the species include, but are not listed to, the carrying out or the issuance of permits for reservoir construction, stream alterations, wastewater facility development, pesticide registration, and road and bridge construction. It has been the experience of the Service, however, that nearly all section 7 consultations can be resolved so that the species is protected and the project objectives are met.

The Act and implementing regulations (50 CFR 17.21) set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. These prohibitions, in part,

make it illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, or collect; or to attempt any of these), import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving endangered wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.22 and 17.23. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or for incidental take in connection with otherwise lawful activities. In some instances, permits may be issued for a specified time to relieve undue economic hardship that would be suffered if such relief were not available. These species are not in trade, and such permit requests are not expected.

Public Comments Solicited

The Service intends that any final action resulting from these proposals will be as accurate and as effective as possible. Therefore, comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning these proposed rules are hereby solicited. Comments particularly are sought concerning:

(1) Biological, commercial trade, or other relevant data concerning any threat (or lack thereof) to the species;

(2) The location of any additional populations of the species and the reasons why any habitat should or should not be determined to be critical habitat as provided by Section 4 of the Act;

(3) Additional information concerning the range, distribution, and population size of the species; and

(4) Current or planned activities in the subject areas and their possible impacts on the species.

Final promulgation of the regulations on these species will take into consideration the comments and any additional information received by the Service, and such communications may lead to final regulations that differ from these proposals.

The Act provides for a public hearing on this proposal, if requested. Requests must be received within 45 days of the date of publication of these proposals. Such requests must be made in writing and should be addressed to the Field Supervisor (see **ADDRESSES** section of this rule).

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

References Cited

Layman, S.R. 1991. Status survey for the dirty darter, (*Etheostoma olivaceum*) and the jewel darter, (*Etheostoma (Doration)* sp.) in the Caney Fork and Cumberland Rivers, Tennessee. Final report submitted to the U.S. Fish and Wildlife Service, Asheville, NC. 35 pages.

Page, L.M., P.A. Cease, D.L. Swofford, and D.G. Buth. 1992. Evolutionary relationships with the *Etheostoma squamiceps* complex (Percidae: subgenus *Catonotus*) with descriptions of five new species. Copies 1992(3), pp. 615–646.

Starnes, W.C., and D.A. Etnier. 1980. Fishes. Pages B1–B134 *In* D.C. Eagar and R.M. Hatcher (eds.). Tennessee's Rare Wildlife Volume 1: The Vertebrates. Tennessee Heritage Program.

Warren, M.L., and B.M. Burr. 1991. Survey of the relict darter (*Etheostoma (Catonotus)* sp. cf *E. neopterum*). Final report submitted to the U.S. Fish and Wildlife Service, Asheville, NC. November 1991. 33 pp.

Webb, D.H., and M.E. Sisk. 1975. The fishes of west Kentucky. III. The fishes of Bayou du Chien. Trans. Ky. Acad. Sci. 36:63–7.

Author

The primary author of this proposed rule is Richard G. Biggins, U.S. Fish and Wildlife Service, Asheville Field Office, 330 Ridgefield Court, Asheville, North Carolina 28806 (704/665–1195 Ext. 228).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, and Transportation.

Proposed Regulations Promulgation

PART 17—[AMENDED]

Accordingly, it is hereby proposed to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. It is proposed to amend § 17.11(h) by adding the following, in alphabetical order under FISHES, to the List of Endangered and Threatened Wildlife:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
•	•	•	•	•	•	•	
Fishes:							
•	•	•	•	•	•	•	
Darter, bluemask (=jewel)	*Etheostoma (Doration)* sp.	U.S.A. (TN)	Entire	E		NA	NA
•	•	•	•	•	•	•	
Darter, relict	*Etheostoma (Catonotus)* sp.	U.S.A. (KY)	Entire	E		NA	NA
•	•	•	•	•	•	•	

Dated: November 27, 1992.

Bruce Blanchard,

Acting Director, Fish and Wildlife Service.

[FR Doc. 92-30176 Filed 12-10-92; 8:45 am]

BILLING CODE 4310-55-M

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Notice of Finding on Petition to List Barton Springs Salamander

AGENCY: Fish and Wildlife Service, Interior.

ACTION: 90-day petition finding.

SUMMARY: The Fish and Wildlife Service (Service) announces a 90-day finding for the petition to add the Barton Springs salamander (*Eurycea* sp.) to the List of Endangered and Threatened Wildlife and Plants. The petition has been found to present substantial information indicating that the requested action may be warranted. A status review is initiated.

DATES: The finding announced in this notice was made on November 25, 1992. To be incorporated into the 12-month finding, information should be submitted to the Service by January 11, 1993 (see **ADDRESSES** below). However, the Service will continue to accept information on the status of the Barton Springs salamander at any time

ADDRESSES: Information, comments, or questions concerning this petition should be sent to the State Administrator, Ecological Services Field Office, U.S. Fish and Wildlife Service, 611 East 6th Street, room 407, Austin, Texas 78701. The petition, petition finding, and supporting data are available for public inspection by appointment, during normal business hours at the above address.

FOR FURTHER INFORMATION CONTACT: Patrick Connor, Fish and Wildlife Biologist, at the above address (Telephone 512/482-5436).

SUPPLEMENTARY INFORMATION:

Background

Section 4(b)(3)(A) of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*), requires that the Service make a finding as to whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information indicating that the petitioned action may be warranted. To the maximum extent practicable, this finding is to be made within 90 days of receipt of the petition, and the finding is to be published promptly in the **Federal Register.** If the finding is positive, the Service is also required to promptly commence a status review of the species concerned.

On January 22, 1992, the Service received a petition from Dr. Mark Kirkpatrick and Ms. Barbara Mahler to list the Barton Springs salamander (*Eurycea* sp.) as an endangered species. The petition also requested critical habitat be designated. The Kirkpatrick and Mahler document, dated January 22, 1992, clearly identified itself as a petition and contained the names, signatures, affiliations, telephone numbers, and addresses of the petitioners.

This finding is based on various documents, including the petition and sources readily available to the Service. Listing will be evaluated in accordance with the Act's requirements. In accordance with the Administrative Procedure Act (5 U.S.C. 553), the Service will consider the request to designate critical habitat and will review the information provided and otherwise available in its deliberation.

The Barton Springs salamander has been considered a Category 2 candidate species since December 30, 1982, when it first appeared in the Animal Candidate Review for Listing as Endangered or Threatened Species (Animal Notice of Review). Category 2 taxa are considered by the Service as candidates for possible addition to the List of Endangered and Threatened Wildlife, but for which conclusive data on biological vulnerability and threats are not currently available to support proposed rules.

Biological Information

The Barton Springs salamander is a morphologically and genetically distinct, but currently unnamed, species in the genus *Eurycea*. Sweet (1978, 1984) found distinct morphological differences between the Barton Springs salamander and other Texas *Eurycea*, but did not formally describe the salamander as a new species. Recent taxonomic work at the University of Texas, based on morphological and genetic data, clearly separates the Barton Springs salamander from other Texas *Eurycea* (Texas Parks and Wildlife Department (TPWD) 1992). Based on geographic isolation and morphological and genetic differences, the Barton Springs salamander warrants recognition as a species (TPWD 1989, 1990, 1992, Sweet 1978, 1984, Chippindale, pers. comm., 1992).

The Barton Springs salamander is completely aquatic. Adults average about 2.5 inches in length. The Barton Springs salamander is a neotenic (retains a larval form with external gills throughout its life) salamanders from the Edwards Plateau of Texas.

Population Status

There are inherent difficulties in estimating the population size and range of aquifer-dwelling species, such as the Barton Springs salamander. The subterranean conduits, caverns and cavities where the salamanders are found are inaccessible to humans. Consequently, the abundance of Barton Springs salamander is unknown. Researchers have to rely on observing individuals that reach the surface. During the past 4 years, Barton Springs salamander juveniles have been found at one of the openings of Barton Springs (Andrew Price, Texas Parks and Wildlife Department, pers. comm., 1992, Hillis and Chippindale 1992, providing evidence that the subterranean population is reproductively viable.

The known range of the Barton Springs salamander is the subterranean, water-filled conduits, caverns, and cavities in a segment of the Edwards Aquifer near the Barton Springs, in Zilker Park, Austin, Texas (Sweet 1978, 1984; TPWD 1990, 1992). Hereafter, this aquifer segment will be referred to as the Barton Springs segment. Some individuals reach the surface in springhead areas in Zilker Park. Charles Sexton (City of Austin, *in litt.*, 1992) has reported sightings of adult Barton Springs salamanders during the summers of 1989, 1990, and 1991 in the Barton Springs swimming area. Despite searches for Barton Springs salamander in other springs, including springs in the Barton Springs segment, and in caves reaching the water table, the salamander has not been found outside of its currently recognized ranged (TPWD) 1990).